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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,726

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Peter Hansen

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01/12/2010

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EXAMINER

MERCHANT, SHAHID R

ART UNIT

PAPER NUMBER

3694

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/825,726	Applicant(s) HANSEN ET AL.	
	Examiner SHAHID R. MERCHANT	Art Unit 3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. This action is in response to the amendment filed on September 29, 2009.
 - Claims 1-44 are pending.
 - Claims 1-24 have been cancelled.
 - Claims 25-44 are new claims

Response to Arguments

2. Applicant's arguments with respect to claims 25-44 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant argues on page 11 that Execution Quality Calculation Module and Message Interceptor are explicitly shown in Figure 2 and therefore do not "require more detailed description in the specification, because implementation of such modules is well known to a person skilled in the art." Examiner disagrees. Figure 2 simply shows a box representative of some entity. It is not explicitly shown in Figure 2 whether the Message Interceptor is hardware, software, combination of hardware and software or even a human being. Further, an Execution Quality Calculation Module as seen in Figure 2 is interpreted to be software.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 3694

5. Claim 44 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant introduces the limitation "A computer software product, comprising a computer-usable medium having computer readable instructions stored thereon..." The previously mentioned terms and limitations constitute new matter. Applicant is advised to point out in the original disclosure where the claimed subject matter appears otherwise the new subject matter should be removed from the claims. Applicant is advised to review section **706.03(o) [R-3] New Matter** of the MPEP.

35 U.S.C. 132. Notice of rejection; reexamination.

(a) Whenever, on examination, any claim for a patent is rejected, or any objection or requirement made, the Director shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application; and if after receiving such notice, the applicant persists in his claim for a patent, with or without amendment, the application shall be reexamined. **No amendment shall introduce new matter into the disclosure of the invention.**

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 33, 36-43 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claim 33, it is unclear what is meant by the term or phrase "preventing sending..." It is not clear whether the step entails preventing a plurality of market order

Art Unit: 3694

executions or sending a plurality of market order executions. Applicant is advised to positively recite the step being performed.

9. Claims 36-43 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural elements are: Claims 36-43 recite a system that comprises a message interceptor (module) and an execution quality calculation module that are each non-structural elements. Subsequently, the system has no structural recitation within the claims to support it in a way that would define the system claimed.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 25-35 are rejected under 35 U.S.C. 101. Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

Art Unit: 3694

Here, applicant's method steps fail the first prong of the new Federal Circuit decision since they are not tied to a machine and can be performed without the use of a particular machine. Thus, claims 25-35 are non-statutory since they may be performed within the human mind.

The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 USC 101. Note the Board of Patent Appeals Informative Opinion *Ex parte* Langemyr.

12. Regarding claims 36-43, Applicant recites a "an apparatus...comprising:..." however, there does not appear to be any computer related hardware or devices or specific structure in the body of the claim. Examiner interprets "a module..." to be software. Software alone in an apparatus claim prevents the claim from falling into one of the statutory categories of invention (see MPEP 2106.01).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 25-30, 32-40 and 42-44 rejected under 35 U.S.C. 103(a) as being unpatentable over Quality of Execution, LLC (see PTO-892, Ref. V). Hereinafter QOE.

Art Unit: 3694

15. As per claim 25, QOE teaches a method, implemented by an apparatus for providing a real-time or near real-time assessment of market trade transactions, comprising:

intercepting one or more market orders from a trader to one or more brokers, and storing an identity of each of said one or more market orders (see item 1);

selecting and intercepting one or more market order executions sent from all or selected brokers of said one or more brokers to said trader, wherein said selecting is performed only if a market order execution is matched with the identity of one of said one or more market orders desired to be evaluated out of said one or more market orders (see item 1);

receiving real-time or near real-time market data related to said one or more market order executions (see items 1 and 2); and

calculating one or more execution qualities corresponding to each of said one or more market order executions using said real-time or near real-time market data, and providing information related to said one or more execution qualities to said trader for said real-time or near real-time assessment of the market trade transactions (see item 3).

QOE does not explicitly disclose a message interceptor and execution quality calculation module. However, QOE discloses Trade Sentry product which one skilled in the art would know is a computer software related product. The Trade Sentry product as disclosed by QOE performs the functions and processes of the message interceptor and execution quality calculation module.

Art Unit: 3694

16. As per claim 26, QOE teaches the method of claim 25 as described above. QOE does not explicitly teach wherein said intercepting and said selecting and intercepting are performed without interfering with communications between said trader and said one or more brokers. However, one skilled in the art would know that it is understood that when one is measuring execution time and other time related qualities, one would not want to further increase execution time by interfering with communications between trader and broker. Therefore, it would be prima facie obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of QOE to intercept and select and intercept without interfering with communications between said trader and said one or more brokers because interfering may increase execution time and that is a quality that one wants to keep at a minimum. See ***KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007)**.

17. As per claim 27, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information comprises at least one of said one or more execution qualities which is an indication of deviation of a value describing said at least one of said one or more execution qualities from one or more predetermined limits (see item 8).

18. As per claim 28, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information related to said one or more execution qualities is provided to said trader via a display (see item 4).

19. As per claim 29, QOE teaches the method of claim 25 as described above. QOE further teaches wherein at least one of said one or more execution qualities is assessed

Art Unit: 3694

for one of said one or more market orders by calculating a difference between a volume-weighted average price of intercepted market order executions of said one or more market order executions for said one of said one or more market orders, and a volume-weighted average price of said real-time or near real-time market data related to a security for said one of said one or more market orders (see items 3, 5, 9 and 10).

20. As per claim 30, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information comprises a comparison of execution qualities for a plurality of market orders of said one or more market orders (see item 5).

21. As per claim 32, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information comprises a proportion of a market volume executed for a selected market order of said one or more market orders compared to a volume being traded for a security of said selected market order by other market participants (see item 7).

22. As per claim 33, QOE teaches the method of claim 25 as described above. QOE further teaches wherein after said selecting and intercepting said one or more market order executions sent from one of said one or more brokers to said trader ,the method comprises:

preventing sending said plurality of market order executions directly to the trader, but forwarding said plurality of market order executions to the trader after aggregating said plurality of market order executions to a predetermined size of transaction (see item 11).

Art Unit: 3694

23. As per claim 34, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information related to said one or more execution qualities is accumulated over a predetermined period of time (see item 5).

24. As per claim 35, QOE teaches the method of claim 25 as described above. QOE further teaches wherein said information related to said one or more execution qualities is provided to said trader via a display, said information comprises one or more of the following:

an indication of what proportion of a particular market order of said one or more market orders has been executed (see item 7).

25. Claim 36 recites similar limitations to claim 25 and thus rejected using the same art and rationale in the rejection of claim 25 as set forth above. Examiner notes that Applicant does not recite specific computer hardware or devices. A message interceptor and an execution quality calculation module are interpreted to be software related. As discussed above in claim 25, QOE discloses Trade Sentry product which one skilled in the art would know is a computer software related product. The Trade Sentry product as disclosed by QOE performs the functions and processes of the message interceptor and execution quality calculation module.

26. Claim 37 recites similar limitations to claim 26 and thus rejected using the same art and rationale in the rejection of claim 26 as set forth above.

27. Claim 38 recites similar limitations to claim 27 and thus rejected using the same art and rationale in the rejection of claim 27 as set forth above.

Art Unit: 3694

28. Claim 39 recites similar limitations to claim 28 and thus rejected using the same art and rationale in the rejection of claim 28 as set forth above.

29. Claim 40 recites similar limitations to claim 29 and thus rejected using the same art and rationale in the rejection of claim 29 as set forth above.

30. Claim 42 recites similar limitations to claim 34 and thus rejected using the same art and rationale in the rejection of claim 34 as set forth above.

31. Claim 43 recites similar limitations to claim 35 and thus rejected using the same art and rationale in the rejection of claim 35 as set forth above.

32. Claim 44 recites similar limitations to claims 25 and 36 and thus rejected using the same art and rationale in the rejection of claims 25 and 36 as set forth above.

Although, QOE does not disclose the Trade Sentry product to be embodied on a computer readable medium, one skilled in the art would know that it is old and well known in the arts to place computer software programs on computer readable mediums for execution by a processor or computer. The Trade Sentry product as disclosed by QOE performs the functions and processes of the message interceptor and execution quality calculation module. See ***KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007)**.

33. Claims 31 and 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Quality of Execution, LLC (see PTO-892, Ref. V) in view of Parker et al., U.S. Patent Application Publication 2004/0059628 (see PTO-892, Ref. D).

Art Unit: 3694

34. As per claim 31, QOE teaches the method of claim 25 as described above.

Parker teaches wherein said information comprises a comparison of performance of all or selected brokers of said one or more brokers using said one or more execution qualities such that the best broker out of said one or more brokers is selected by said trader for subsequent transactions (see paragraphs 22-25, 54 and Figure 4).

Therefore, it would be prima facie obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of QOE and Parker to rank brokers based on execution quality and select the best broker for future transactions because it would allow a trader to determine whether the broker represents value for money based on execution qualities and ratings as taught by Parker (see paragraph 2).

35. Claim 41 recites similar limitations to claim 31 and thus rejected using the same art and rationale in the rejection of claim 31 as set forth above.

Conclusion

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAHID R. MERCHANT whose telephone number is (571)270-1360. The examiner can normally be reached on First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 3694

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shahid R Merchant/
Examiner, Art Unit 3694